

WHAT IS CLAIMED IS:

- 1 1. A method for managing failure messages for email messages, the
2 method comprising:
3 determining a plurality of rules that classify failure messages in a plurality of
4 failure types;
5 sending an email message to an email address associated with an Internet
6 service provider (ISP);
7 determining a failure message for the email message;
8 determining a rule in the plurality of rules that applies to the failure message;
9 and
10 determining, for the failure message, a failure type in the plurality of failure
11 types based on the determined rule.
- 1 2. The method of claim 1, further comprising performing an action based
2 on the failure type.
- 1 3. The method of claim 2, wherein the action comprises:
2 determining an invalidation rule that is associated with the failure type; and
3 performing the action based on the determined invalidation rule and the ISP
4 associated with the email address.
- 1 4. The method of claim 3, wherein the action comprises marking the
2 email address as invalid.
- 1 5. The method of claim 3, wherein different ISPs have different
2 invalidation rules for marking the email address as invalid.
- 1 6. The method of claim 2, wherein the action comprises storing
2 information for the email address based on the failure type determined.
- 1 7. The method of claim 1, wherein the plurality of rules include rules for
2 a plurality of ISPs, wherein the rules for the ISP associated with the email address are used to
3 determine the failure type.
- 1 8. The method of claim 1, wherein the plurality of rules each include
2 information for a failure message, wherein determining the rule that applies to the failure

3 message comprises comparing content of the failure message to the information for the rules
4 to determine a rule that includes information that matches the content of the failure message.

1 9. The method of claim 1, wherein the failure message comprises a
2 failure message that is determined before delivery of the email message.

1 10. The method of claim 1, wherein the failure message comprises a
2 failure message email message that is determined after delivery of the email message.

1 11. The method of claim 1, wherein the failure message comprises a
2 failure message sent by the ISP.

1 12. A method for categorizing failure messages from a plurality of Internet
2 service providers (ISPs), the method comprising:

3 determining a plurality of failure types;

4 determining a plurality of sets of rules for the failure types that categorize a
5 failure message into a failure type, wherein each ISP in the plurality of ISPs is associated
6 with a set of rules in the plurality of rules;

7 receiving a failure message associated with an ISP;

8 determining a set of rules that is associated with the ISP;

9 determining a rule in the set of rules associated with the ISP for the failure
10 message; and

11 determining a failure type associated with the rule.

1 13. The method of claim 12, further comprising:

2 determining an email address associated with the failure message; and

3 determining if the email address should be marked as invalid based on the
4 failure type determined.

1 14. The method of claim 1, wherein determining if the email address
2 should be invalidated comprises:

3 determining a set of invalidation rules that is associated with the ISP;

4 determining an invalidation rule in the determined set of invalidation rules
5 associated with the determined failure type; and

6 determining if the email address should be marked as invalid based on the
7 determined invalidation rule.

1 15. The method of claim 14, wherein determining if the email address
2 should be marked as invalid based on the invalidation rule comprises marking the email
3 address as invalid if a failure message for the failure type has been received a certain number
4 of times.

1 16. The method of claim 12, further comprising storing information for the
2 email address indicating the failure message of the determined failure type was received.

1 17. The method of claim 12, wherein the rule includes information for a
2 failure message, wherein determining the rule that applies to the failure message comprises
3 comparing content of the failure message to the information for the failure message for the
4 rules to determine a rule that includes information that matches the content of the failure
5 message.

1 18. A method for categorizing failure messages, the method comprising:
2 determining a plurality of failure types for failure messages;
3 sending an email message to an email address associated with an Internet
4 service provider (ISP);
5 determining a failure message for the email message; and
6 determining, for the failure message, a failure type in the plurality of failure
7 types.

1 19. The method of claim 18, wherein determining the plurality of failure
2 types comprises determining a plurality of sets of rules, wherein ISPs in a plurality of ISPs
3 are associated with a set of rules, the rules in each set of rules corresponding to failure types
4 in the plurality of failure types.

1 20. The method of claim 19, wherein determining the failure message
2 comprising:
3 determining a set of rules that is associated with the ISP;
4 determining a rule in the determined set of rules that is associated with the
5 failure message; and
6 determining a failure type associated with the rule.

1 21. The method of claim 20, wherein determining the rule comprising
2 comparing the rules to content of the failure message to determine a rule that includes
3 information that matches the content of the failure message.

1 22. The method of claim 18, further comprising performing an action
2 based on the failure type.

1 23. The method of claim 22, wherein the action comprises:
2 determining an invalidation rule that is associated with the failure type; and
3 performing the action based on the determined invalidation rule and the ISP
4 associated with the email address.

1 24. The method of claim 23, wherein the action comprises marking the
2 email address as invalid.

1 25. The method of claim 23, wherein different ISPs have different
2 invalidation rules for marking the email address as invalid.

1 26. The method of claim 23, wherein the action comprises storing
2 information for the email address based on the failure type determined.

1 27. A system for classifying failure messages, the system comprising:
2 a plurality of Internet service providers (ISPs); and
3 a failure message processor configured to process failure messages associated
4 with an ISP, the failure message processor comprising:
5 a plurality of sets of rules that categorize failure messages into a failure
6 type, wherein each ISP in the plurality of ISPs is associated with a set of rules;
7 logic to determine a failure message associated with an ISP;
8 logic to determine a set of rules that is associated with the ISP;
9 logic to determine a rule in the set of rules associated with the ISP for
10 the failure message; and
11 logic to determine a failure type associated with the rule.

1 28. The system of claim 27, wherein the failure message processor further
2 comprises:
3 logic to determine an email address associated with the failure message; and

4 logic to determine if the email address should be marked as invalid based on
5 the failure type determined.

1 29. The system of claim 28, wherein the logic to determine if the email
2 address should be invalidated comprises:

3 logic to determine a set of invalidation rules that is associated with the ISP;

4 logic to determine an invalidation rule associated with the determined failure
5 type; and

6 logic to determine if the email address should be marked as invalid based on
7 the invalidation rule.

1 30. The system of claim 29, wherein the logic to determine if the email
2 address should be marked as invalid based on the invalidation rule comprises logic to mark
3 the email address as invalid if a failure message for the failure type has been received a
4 certain number of times.

1 31. The system of claim 27, wherein the failure message processor further
2 comprises logic to store information for the email address indicating the failure message of
3 the determined failure type was received.